

IN THE SPECIFICATION:

On page 1, immediately after the title, please insert the following paragraph and heading as follows:

This specification for the instant application should be granted the priority date of August 13, 2003, the filing date of the corresponding German patent application 103 37 379.9 as well as the priority date of 29 June 2004, the filing date of the corresponding International patent application PCT/EP2004/007022 filed 29 June 2004.

Background of the Invention.

On page 1, lines 4 -7, please amend this paragraph to read as follows:

The present invention relates to a device for the UV treatment of flowing media, in particular to a device for the UV disinfection of drinking water or waste water, ~~having the features of the pre-characterizing clause of Claim 1.~~

On page 1, lines 13 – 24, please amend this paragraph as follows:

The general technical background of the present invention relates to UV disinfection systems. A distinction must firstly be drawn between UV disinfection systems comprising medium-pressure emitters, which are not the subject of the present invention, and systems of this type comprising low-pressure mercury UV emitters ~~as specified in the pre-characterizing clause of Claim 1.~~ The systems comprising medium-pressure emitters conventionally have few emitter units, which are distinguished by high UV radiation power with correspondingly increased electrical power consumption. As there are, in this case, only a few emitters, separate monitoring of each individual emitter is easily possible. In the case of medium-pressure emitters, the cost of this monitoring is low compared to other expenses and equipment costs.

On page 3, line 16, please insert the following heading:

--Summary of the Invention—

On page 3, line 17, please amend this paragraph to read as follows:

This object is achieved by a device having ~~the features of Claim 4~~ a plurality of cylindrical low-pressure mercury UV emitters arranged in groups in the flow channel, wherein the longitudinal axes of the UV emitters are disposed substantially parallel to one another such that the emitters of a given group are disposed in a plane; at least one elongated sensor arrangement monitors an operating state of the UV emitters, with the sensor arrangement being spaced from and parallel to one of the groups of emitters; the sensor arrangement extends essentially transverse to the longitudinal axes of the UV emitters of the adjacent group, and is provided with a separate UV sensor for each emitter of that group; at least one unit is connected with the sensor arrangement for controlling and/or regulating the UV emitters.

On page 4, line 12, through page 5, line 8, please amend this paragraph as follows:

The aforementioned object is achieved by ~~a~~the inventive device having ~~the features of claim 1~~, because the sensor means comprise at least one elongate sensor arrangement, which is arranged parallel to one of the groups of emitters of the array and at a distance from the group, the sensor arrangement extending substantially transversely to the longitudinal axes of the emitters of the adjacent group, and a separate UV sensor being provided for each emitter of the group. As a result of the incorporation of a sensor arrangement into the device, a complete group of emitters may thus be monitored individually. Advantageously, the sensor arrangement is arranged in a quartz tube, as this is an established technology, in terms of UV transparency, mechanical stability and water tightness, from the field of UV emitters. In a device according to the invention, the emitters themselves are preferably arranged in the flow channel transversely to the direction of flow. These arrangements ensure effective swirling of the flowing fluid, wherein greater flow resistance builds up than in the case of emitters arranged longitudinally to the flow. The incorporation of the sensor arrangements does not substantially alter the flow characteristics. The sensor arrangements may, in particular, also be arranged in the flow

channel transversely to the direction of flow, so that the electrical terminals and the mechanical mounts may be provided laterally in the flow channel.

On page 6, line 11, please insert the following heading:

--Brief Description of the Drawings--

On page 7, at line 1, please insert the following heading:

--Description of Specific Embodiments--.

On page 9, line 9, through page 10, line 2, please amend this paragraph as follows:

In practice, the above-described device operates as follows: the flowing medium is, for example, the outflow of a sewage treatment plant, i.e. waste water that has already been mechanically and biologically treated, but still contains microorganisms. The microorganisms migrate in the waste water flow 1, which proceeds in the flow channel 2, in the direction of flow, i.e. from left to right as shown in Fig. 1. The water flow passes through the emitters 3, which are arranged transversely to the direction of flow, and then through the additional emitter groups 4, 5, 6, 7 and 8 before it enters the outlet of the treatment plant. The emitters 3 to 8 are supplied by the ~~control device~~ control device 10 with operating voltage in such a way that they emit UV radiation in the relevant wavelength range (approximately 254 nm) for the disinfection of microorganisms. The intensity is selected in such a way that reliable disinfection occurs once the emitter arrangement has been passed through. The system is configured in such a way that all of the emitters 3 to 8 operate simultaneously. In the case of systems with a variable water level, it may be provided to switch off the upper line of the emitters when these become dry. This adjustment is known from the prior art.

On page 13, after line 2, please insert the following two new paragraphs:

--The specification incorporates by reference the disclosure of German priority document

103 37 379.9 filed August 13, 2003 and PCT/EP2004/007022 filed June 29, 2004.

The present invention is, of course, in no way restricted to the specific disclosure of the

specification and drawings, but also encompasses any modifications within the scope of the appended claims.--

In addition, please delete the existing abstract and replace with the attached abstract as follows:

Abstract

The invention relates to a device for the UV treatment of fluids flowing in a flow channel, comprising a number of cylindrical low-pressure mercury UV emitters, which are arranged in groups in the flow channel, substantially with their longitudinal axes parallel to one another, in such a way that one group comprises a plurality of emitters arranged in one plane, comprising sensor means for monitoring the operating state of the emitters, and comprising at least one unit, which is connected to the sensor means, for controlling, adjusting and/or monitoring the emitters. Individual monitoring of the radiation power of each emitter is facilitated in that the sensor means comprise at least one elongate sensor arrangement, which is arranged parallel to one of the groups and at a distance from the group, the sensor arrangement extending substantially transversely to the longitudinal axes of the emitters of the adjacent group, and a separate UV sensor being provided for each emitter of the group.

Fig. 1